

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) A communications system comprising:

a server;

a client terminal; and

a communications network which interconnects said server and said client terminal;

said client terminal including means ~~connected to said server, said means for~~
establishing ~~communications~~ communication with said server;

said server including:

a memory for storing information about ~~disconnection condition~~ a plurality of
separate and distinct disconnection conditions regarding disconnection of client terminals;

decision means for monitoring a connection state between said client terminal
and said server and deciding whether or not said connection state corresponds to ~~said~~
~~disconnection condition~~ at least one of said disconnection conditions; and

disconnection means for disconnecting said client terminal when it is decided
that said connection state corresponds to ~~said disconnection condition~~ said at least one of said
disconnection conditions.

2. (Currently Amended) The communications system defined in ~~Claim any one of~~ Claim 1,
wherein said disconnection means comprises means for disconnecting a client terminal
logged in at an earliest time when two or more client terminals have ~~the~~ a same disconnection
condition.

3. (Currently Amended) A communications system comprising:

a server;

a client terminal; and

a communications network which interconnects said server and said client terminal;

said client terminal including means for transmitting a user identifier to issue a log-in request to said server;

said server including:

means for logging in to ~~said client terminal~~ terminals in response to a log-in ~~request~~ requests from said client ~~terminal~~ terminals;

a memory for storing ~~disconnection condition~~ a plurality of separate and distinct disconnection conditions regarding disconnection of said client terminals in conjunction with ~~said user identifier~~ identifiers;

retrieval means for retrieving ~~said stored disconnection condition~~ at least one of said plurality of disconnection conditions based on a said user identifier transmitted from said client terminal; and

disconnection means for monitoring a connection state between said client terminal and said server and disconnecting said client terminal when said connection state corresponds to ~~said disconnection condition~~ at least one of said disconnection conditions.

4. (Currently Amended) The communications system defined in Claim ~~2~~ 3, wherein said disconnection means ~~further comprising~~ comprises:

decision means for monitoring a said connection state between said client terminal and said server and deciding whether or not said connection state corresponds to said ~~disconnection condition~~ at least one of said disconnection conditions; and

client disconnection means for disconnecting said client terminal when said connection state corresponds to ~~said disconnection condition~~ at least one of said disconnection conditions.

5. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores a maximum allowable time period between logging-in and disconnection ~~by a service user of said client terminal~~, in conjunction with a said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a time period that has elapsed from after a log-in operation to said server ~~from by~~ said client terminal exceeds a said maximum allowable time period stored in said memory.

6. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores a maximum allowable non-communication time period for which data is not transmitted or received by said client terminal in conjunction with a said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a non-communication time period of a said client terminal exceeds said maximum allowable non-communication time period stored in said memory.

7. (Currently Amended) The communications system defined in Claim 6, wherein said server is connected to an application server which stores an application supplied to a said client terminal; and

wherein said maximum allowable non-communication time period is a maximum allowable time period for which a packet is not communicated between a said client terminal and a said application server before said client terminal is to be disconnected; and

wherein said disconnection means comprises means for monitoring ~~an arrival time~~ times of a packet being a group of the same packets that have a transmission destination address and the same or a reception destination address that is the same as an address of the client terminal, and for performing disconnection of said client terminal when a time period elapsed ~~from said~~ after an arrival time exceeds a said maximum allowable non-communication time period stored in said memory.

8. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores ~~an~~ a maximum allowable simultaneous jointer count ~~which that specifies a number of said client terminals that~~ can be simultaneously connected to ~~an access point or said server before said client terminal is to be disconnected~~, in conjunction with a said user identifier; and

wherein said disconnection means comprises means for performing disconnection when the number of ~~jointers~~ said client terminals connected to ~~an access point or said~~ server exceeds the maximum allowable simultaneous jointer count stored in said memory.

9. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores ~~an~~ a maximum allowable traffic value that specifies a level of allowable traffic

for said client terminal in a predetermined period of time, in conjunction with ~~a~~ said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when ~~said~~ a level of actual traffic for said client terminal exceeds ~~an~~ said maximum allowable traffic value stored in said memory.

10. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with ~~a~~ said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when a data volume of ~~a packet being a group of the same~~ packets having a ~~transmission/reception or reception~~ destination address the same as an address of the client terminal exceeds said specific volume.

11. (Currently Amended) The communications system defined in Claim 3, wherein said server is connected to an application server which stores an application supplied ~~from a~~ from said client terminal; and

wherein said memory stores an address of said application server and a timeout time, in conjunction with ~~a service~~ said user identifier; and

wherein said disconnection means comprises means for monitoring an arrival time of a packet stored in said memory, said packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from said arrival time, said timeout time being stored in said memory in conjunction with ~~a service~~ said user identifier, said memory belonging to a group of a matching address and a matching service identifier and ~~with~~ when the timing ~~a~~ of said packet matching a group of an address and a service identifier is not received from an opposite party.

12. (Currently Amended) The communications system defined in Claim 3, wherein said disconnection means comprises means for disconnecting a first client terminal logged in at an

earliest time when two or more of said client terminals have ~~the~~ a same disconnection condition of the plurality of disconnection conditions.

13. (Currently Amended) The communications system defined in Claim 3, wherein said memory stores a line disconnecting order in conjunction with ~~a~~ said user identifier; and wherein said disconnection means is means for performing disconnection of said client terminal in accordance with the line disconnecting order stored in said memory.

14. (Currently Amended) A communications method suitable for a communications system, said communications system comprising a server, a client ~~terminal~~; terminal, and a communications network which interconnects said server and said client terminal, said client terminal performing the steps of:

connecting said client terminal to said server and establishing communications;
monitoring a connection state between said client terminal and said server;
deciding whether or not said connection state corresponds to ~~a disconnection condition~~, at least one of a plurality of separate and distinct disconnection conditions ~~said disconnection condition regarding that connection stored in said memory is broken~~; and
disconnecting said client terminal when it is decided that said connection state corresponds to said at least one of said plurality of disconnection condition conditions.

15. (Currently Amended) The communications method defined in Claim 14, wherein a client terminal logged in at an earliest time is disconnected when two or more client terminals have ~~the~~ a same disconnection condition.

16. (Currently Amended) A communications method suitable for a communications system, said communications system comprising a server, a client terminal, and a communications network which interconnects said server and said client ~~terminal~~; terminal,
said client terminal performing the step of:
transmitting a user identifier to issue a log-in request to said server;
said server performing the steps of:

logging in to said client terminal in response to a said log-in request from said client terminal;

retrieving, based on a said user identifier transmitted from said client terminal, a at least one of a plurality of separate and distinct disconnection-condition conditions that is stored in conjunction to associated with said user identifier; and

monitoring a connection state of said client terminal; and

disconnecting said client terminal when said connection state corresponds to said at least one of said plurality of disconnection-condition conditions.

17. (Currently Amended) The communications method defined in Claim 16, ~~wherein said memory stores a time period between logging in and disconnection by a service user, in conjunction with a user identifier; and~~

wherein said disconnection is performed when a time period elapsed from a log-in operation to said server from said client terminal exceeds a maximum allowable time period that is associated with said user identifier ~~stored in said memory~~.

18. (Currently Amended) The communications method defined in Claim 16, ~~wherein said memory stores a non-communication time period for which data is not transmitted or received in conjunction with a user identifier; and~~

wherein said disconnection is performed when a non-communication time period of a said client terminal, during which data is not transmitted or received from said server, exceeds ~~said~~ a maximum allowable non-communication time period that is associated with said user identifier ~~stored in said memory~~.

19. (Currently Amended) The communications method defined in Claim 18, wherein said server is connected to an application server which stores an application supplied to a said client terminal; and

wherein said non-communication time period is a time period for which a packet is not communicated between a said client terminal and ~~an~~ said application server; and

wherein an arrival time of a packet being in a group ~~of the~~ having a same transmission destination address and ~~the~~ a same reception destination address is monitored, and said

disconnection is performed when a monitored time period elapsed from said arrival time exceeds a said maximum allowable non-communication time period ~~stored in said memory~~.

20. (Currently Amended) The communications method defined in Claim 16, ~~wherein said memory stores an allowable simultaneous jointer count which can be simultaneously connected to an access point or server, in conjunction with a user identifier; and~~

wherein said disconnection is performed when ~~the~~ a number of jointers client terminals simultaneously connected to ~~an access point or~~ said server exceeds ~~the~~ a maximum allowable simultaneous jointer count that is associated with said user identifier ~~stored in said memory~~.

21. (Currently Amended) The communications method defined in Claim 16, ~~wherein said memory stores an allowable traffic allowable in a predetermined period of time, in conjunction with a user identifier; and~~

wherein said disconnection is performed when ~~said~~ a level of actual traffic from said client to said server in a predetermined time period exceeds ~~an~~ a maximum allowable traffic value that is associated with said user identifier ~~stored in said memory~~.

22. (Currently Amended) The communications method defined in Claim 16, ~~wherein said memory stores a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with a user identifier; and~~

wherein said disconnection is performed when ~~the~~ a data volume of a packet packets being in a group of the having a same transmission/reception destination address as an address of the client terminal exceeds ~~said~~ a specific volume amount that is associated with said user identifier.

23. (Currently Amended) The communications method defined in Claim 16, wherein said server is connected to an application server which stores an application supplied from ~~a~~ said client terminal; and

~~wherein said memory stores an address of said application server and a timeout time, in conjunction with a service identifier;~~

~~wherein said method further comprising the steps comprises the step of monitoring an arrival time of a packet stored in said memory, said packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from said arrival time, said timeout time being stored in said memory in conjunction associated with a service said user identifier, said memory belonging to a group of a matching address and a matching service identifier and with the timing a packet matching a group of an address and a service identifier is not received from an opposite party.~~

24. (Currently Amended) The communications method defined in Claim 16, wherein a client terminal logged in at an earliest time is disconnected when two or more client terminals have the a same disconnection condition.

25. (Currently Amended) The communications method defined in Claim 16, ~~wherein said memory stores a line disconnecting order in conjunction with a user identifier; and~~

~~wherein said disconnection is performed in accordance with the a line disconnecting order that is associated with said user identifier stored in said memory.~~

26. (Currently Amended) A server, ~~which links to a client terminal based on a disconnection condition regarding disconnection of communications established between said server and a service user, said server~~ comprising:

~~means for logging in to said client terminal terminals in response to a log-in request requests from said client terminal terminals;~~

~~a memory for storing a plurality of separate and distinct disconnection condition conditions regarding disconnection of said client terminals in conjunction with said user identifier identifiers;~~

~~retrieval means for retrieving said stored at least one of said plurality of disconnection condition conditions based on a user identifier transmitted from said a client terminal; and~~

disconnection means for monitoring a connection state between said client terminal and said server and for disconnecting said client terminal when said connection state corresponds to said at least one of said plurality of disconnection-condition conditions.

27. (Currently Amended) The server defined in Claim 26, wherein said memory stores a maximum allowable time period between logging in and disconnection ~~by a service user of~~ said client terminal, in conjunction with ~~a~~ said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a time period that has elapsed ~~from~~ after a log-in operation to said server ~~from~~ by said client terminal exceeds ~~a~~ said maximum allowable time period stored in said memory.

28. (Currently Amended) The server defined in Claim 26, wherein said memory stores a maximum allowable non-communication time period for which data is not transmitted or received by said client terminal, in conjunction with ~~a~~ said user identifier; and

wherein said disconnection means comprises means for performing disconnection when a non-communication time period of ~~a~~ said client terminal exceeds said maximum allowable non-communication time period stored in said memory.

29. (Currently Amended) The server defined in Claim 28, wherein said server is connected to an application server which stores an application supplied to ~~a~~ said client terminal;

wherein said maximum allowable non-communication time period is a maximum allowable time period for which a packet is not communicated ~~between a~~ said client terminal and ~~an~~ said application server before said client terminal is to be disconnected; and

wherein said disconnection means comprises means for monitoring ~~an~~ arrival ~~time~~ times of ~~a packet~~ packets being in a group ~~of the~~ having a same transmission destination address and ~~the~~ a same reception destination address, and for performing disconnection of said client terminal when a time period elapsed ~~from said~~ after an arrival time exceeds ~~a~~ said maximum allowable non-communication time period stored in said memory.

30. (Currently Amended) The server defined in Claims 26, wherein said memory stores ~~an~~ a maximum allowable simultaneous jointer count ~~which~~ that specifies a number of said client

terminals that can be simultaneously connected to an access point or said server before said client terminal is to be disconnected, in conjunction with a said user identifier; and

wherein said disconnection means comprises means for performing disconnection when the number of ~~jointers~~ said client terminals connected to ~~an access point or said~~ server exceeds the maximum allowable simultaneous jointer count stored in said memory.

31. (Currently Amended) The server defined in Claim 26, wherein said memory stores ~~an a~~ maximum allowable traffic value that specifies a maximum level of allowable traffic for said client terminal in a predetermined period of time, in conjunction with a said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when ~~said a level of actual traffic for said client terminal exceeds an said~~ maximum allowable traffic value stored in said memory.

32. (Currently Amended) The server defined in Claims 26, wherein said memory stores a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, in conjunction with a said user identifier; and

wherein said disconnection means comprises means for performing disconnection of said client terminal when a data volume of ~~a packet~~ packets being in a group of the having a same transmission/reception destination address as an address of the client terminal exceeds said specific volume.

33. (Currently Amended) The server defined in Claim 26, wherein said server is connected to an application server which stores an application supplied ~~from a~~ from said client terminal; and

wherein said memory stores an address of said application server and a timeout time, in conjunction with ~~a service~~ said user identifier; and

said disconnection means comprises means for monitoring an arrival time of a packet stored in said memory, said packet being a group of an address and a service identifier, and performing disconnection immediately before elapsing a timeout time from said arrival time,

said timeout time being stored in said memory in conjunction with ~~a service~~ said user identifier, said memory belonging to a group of a matching address and a matching service identifier and ~~with~~ when the timing ~~a~~ of said packet matching a group of an address and a service identifier is not received from an opposite party.

34. (Currently Amended) The server defined in Claim 26, wherein said disconnection means comprises means for disconnecting a first client terminal logged in at an earliest time when two or more of said client terminals have ~~the~~ a same disconnection condition of the plurality of disconnection conditions.

35. (Currently Amended) The server defined in Claim 26, wherein said memory stores a line disconnecting order in conjunction with ~~a~~ said user identifier; and

wherein said disconnection means is means for performing disconnection of said client terminal in accordance with the line disconnecting order stored in said memory.

36. (Currently Amended) A recording medium in which ~~a process~~ program is stored, said ~~process~~ program ~~controllably linking a~~ causing a server to execute a process to a client terminal based on a disconnection condition regarding disconnection of communications established between said server and a service user, said ~~process~~ program comprising the steps of:

storing a plurality of separate and distinct disconnection conditions relating to disconnection of client terminals;

logging in ~~to said~~ a client terminal in response to a log-in request from said client terminal;

retrieving, based on a user identifier transmitted from said client terminal, ~~a~~ at least one of said plurality of disconnection condition conditions stored in conjunction to associated with said user identifier;

monitoring a connection state between said client terminal and said server; and

disconnecting said client terminal when said connection state corresponds to said at least one of said disconnection condition conditions.

37. (Currently Amended) The recording medium defined in Claim 36, wherein ~~a process program is stored for performing said disconnection~~ said step of disconnecting is performed when a time period ~~that has elapsed from~~ after the time at which said client terminal logs in to said server exceeds a maximum allowable time period between logging-in and disconnection, said maximum allowable time period being stored in conjunction with a said user identifier ~~of a service user~~.

38. (Currently Amended) The recording medium defined in Claim 36, wherein ~~a process program is stored for performing said disconnection~~ said step of disconnecting is performed when a non-communication time period of a client terminal exceeds a maximum allowable non-communication time period ~~that is associated with said user identifier for which data stored in conjunction with a user identifier of a service user is not transmitted or received~~.

39. (Currently Amended) The recording medium defined in Claim 38, wherein ~~a process program is stored for~~ said process further comprises the step of monitoring an arrival time of ~~a packet packets having being in a group of the~~ having a same transmission/reception destination addresses as an address of the client terminal; and

wherein said step of disconnecting is ~~performing said disconnection performed~~ when a said non-communication time period of said client terminal ~~exceeds from~~ based on said arrival time ~~exceeds a predetermined~~ said maximum allowable non-communication time period ~~for which a packet is not communicated between said client terminal and said application server~~.

40. (Currently Amended) The recording medium defined in Claim 36, wherein ~~a process program is stored for performing said disconnection~~ said step of disconnecting is performed when ~~the~~ a number of users said client terminals connected to ~~an access point or~~ said server exceeds ~~an~~ a maximum allowable simultaneous jointer count that is associated ~~which is simultaneously connectable to an access point or server, said allowable simultaneous jointer count being stored in conjunction with a~~ said user identifier.

41. (Currently Amended) The recording medium defined in Claim 36, wherein ~~a process program is stored for performing said disconnection~~ said step of disconnecting is performed when ~~said~~ a level of traffic for said client terminal exceeds an a maximum allowable traffic value that specifies a maximum level of allowable traffic for said client terminal in a predetermined time period, said maximum allowable traffic value being ~~stored in conjunction with a~~ associated with said user identifier.

42. (Currently Amended) The recording medium defined in claim 36, wherein ~~a process program is stored for performing said disconnection~~ said step of disconnecting is performed when the data volume of ~~a packet~~ packets ~~having a~~ being in a group of the having a same transmission/reception destination addresses exceeds a specific volume of data selected from the group of a transmission packet size, a reception packet size, a transmission packet count, and a reception packet count, each being ~~stored in conjunction~~ associated with ~~a~~ said user identifier.

43. (Currently Amended) The recording medium defined in Claim 36, wherein said program causes said server to store ~~stores a process program in a system connected to an application server which stores an application supplied to a~~ said client terminal, ~~said process program for monitoring and to monitor an arrival time of a packet being a group of an address and a service identifier, said packet being stored as a group of an address and a service identifier, and performing said disconnection immediately before a stored timeout time elapses from said arrival time and with~~ when the timing ~~a~~ of said packet is not received from an opposite party.

44. (Currently Amended) The recording medium defined in Claim 36, wherein ~~a said process program is stored for performing disconnection~~ further comprises the step of disconnecting from a first client terminal logged in at an earliest time when two or more client terminals ~~have the~~ satisfy a same disconnection condition of the plurality of disconnection conditions.

45. (Currently Amended) The recording medium defined in Claim 36, wherein ~~a process program is stored for performing said disconnection~~ said step of disconnecting is performed in accordance with an a line disconnecting order stored in conjunction with a that is associated with said user identifier.